DESCRIPTIONS OF FIVE NEARCTIC SAWFLIES OF THE TRIBE HEMICHROINI.

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The following five new species of sawflies belonging to the Tenthredinid tribe Hemichroini have been received for identification since the review of the Nearctic species published by the senior author in 1918.[1]

Some of these species are of particular interest because of the association with foodplants. One of them, the new genus, is of special interest because of an unusual structural character which makes it necessary to broaden the description of the subfamily to include forms in which the prepectus is wanting.

SUSANA, new genus.

Although this genus lacks the prepectus—a character of considerable use in classification and heretofore thought to be well defined in all genera of the Nematinae—it is placed in the subfamily Nematinae, tribe Hemichroini. In this tribe it would fall on general habitus, next to the genus *Craterocercus* Rohwer. In addition to the absence of the prepectus it may, however, be distinguished from that genus by having a small erect inner tooth on the tarsal claws, in the truncate clypeus, in the nearly straight inner margin of the eyes, in the somewhat larger hind coxae, and in the better defined ocellar basin. Other than lacking the prepectus the important characters are those common to the tribe Hemichroini—even as to the wing venation, the characters of the pro- and meta-thorax.

Malar space practically wanting; eyes large, their inner margins straight and nearly parallel; anterior margin of the clypeus truncate; ocellar basin well defined; no carina on the hind margin of the head; antenna long and slender in the female, the third and fourth joints subequal but in the male the third is shorter than the fourth and compressed; head and thorax with distinct punctures; prepectus wanting; tarsal claws with an erect inner tooth near the middle; hind coxae large for the group; hind tibia longer than the femur or tarsi; first joint of hind tarsi longer than any of the following but not as long as the second and third; interradius usually present (incomplete in the male); second and third cubital cells each receiving a recurrent vein; nervulus a little basad of middle; anal vein fused with the submedius for a distance about half as great as the length of the first anal cell; anellen cell with a long petiole; cubitellan and discoidellan cells complete; recurrentella antifurcal in the female, postfurcal in the male; abdomen typical.

Genotype.—Susana cupressi, new species.

[1]Notes on, and descriptions of sawflies belonging to the Tenthredinid tribe, Hemichroini (Hym), Proc. Ent. Soc. Wash., Vol. 20, No. 8, 1918, pp. 161–173.

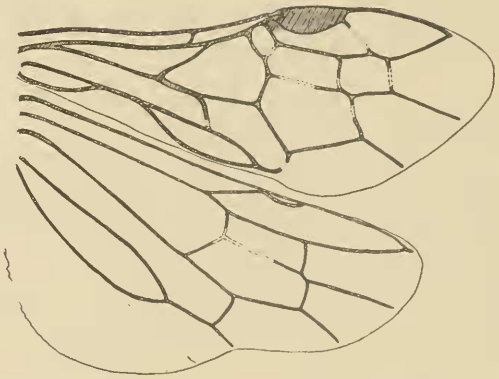

Fig. 1. *Susanna cupressi*, wings of male allotype.

Susana cupressi, new species.

Female.—Length 7.5 mm. Superaclypeal area prominently convex; median fovea large, well defined, U-shaped; ocellar basin heptagonal, the walls rather sharply defined; lateral ocelli on the supraocellar line; postocellar line slightly longer than the ocellocular line; postocellar furrow present but not sharply defined; postocellar area convex; a rather large depression laterad of each lateral ocellus; head shining with distinct, well separated punctures; mesoscutum shining with widely separated distinct punctures; scutellum with the punctures larger and closer than those of the scutum; posttergite shining with distinct well separated punctures; stigma broadest at basal third, tapering to a subtruncate apex; interradius beyond middle; second recurrent close to the base of the third cubital cell; nates polished; sheath rather narrow, the upper margin straight, the lower slightly tapering to truncate apex. Black; pronotum, mesoscutum, abdomen except first tergite, apical tergite, sternite and sheath rufous; legs black; apices of four anterior femora and bases of hind tibiae rufous; wings subhyaline, venation including the costa and stigma black.

Male.—Length 6 mm. Structural characters agree in general with those described for the female. Antennae longer than the body, strongly tapering; hairy, third joint about three-fourths as long as the fourth, compressed and wider basally; interradius obsolete but presence indicated at the stigma; hypopygium shining, the apical margin depressed, truncate. Color markings as in the female except the thorax is entirely black.

Type-locality.—Santa Susana, Ventura County, California.

Allotype-locality.—Glendale, California.

Described from three (one type) females from the type-locality reared from Monterey Cypress (*Cupressus macrocarpa*), 2–9–31 and bear California Department of Agriculture number 31123; and from one male (allotype) collected 3–26–31 by Williams and coming from the collection of the Los Angeles County Horticultural Commissioner.

Type, allotype and paratypes.—Cat. No. 44063 U. S. N. M.

Platycampus (Anoplonyx) laricis, new species.

This second Nearctic species of the subgenus *Anoplonyx* may readily be separated from the description of *A. canadensis* Harrington by the pale angles of the pronotum.

Female.—Length, 5 mm. Anterior margin of clypeus broadly arcuately emarginate, the lobes broadly rounded; supraclypeal area flat; median fovea elongate, open above; ocellar basin hexagonal in outline, poorly defined below; postocellar furrow curved; postocellar area strongly convex, not defined laterally because of the obsolete vertical furrows; postocellar and ocellocular lines subequal; antenna slender, the third, fourth and fifth joints subequal; stigma broadest at base, tapering to an acute apex; third cubital cell but little longer than apical width; recurrentella antefurcal; sheath broad, truncate apically. Black; apex of clypeus, labrum and palpi piceous; legs below coxae reddish-yellow with a piceous tinge at base of femora; angles of pronotum and the tegulae sordid-whitish; ventral part of ninth tergite ferruginous; wings hyaline, venation dark brown.

Male.—Length 5 mm. Agrees with the above description of the female except as follows: Clypeus, labrum, pronotum, tegulae, femora and tarsi black. Hypopygidium black, broadly rounded; genitalia black.

Type-locality.—Coeur d'Alene, Idaho.

Described from three (one type) females and two (one allotype) males reared from larvae feeding on *Larix occidentalis* and recorded under Bureau of Entomology number Hopk. U. S. 16379ᵃ. Material collected by H. J. Rust and reared in the laboratory; males emerging April 15, 1922, and females May 18, 1922.

Type.—Cat. No. 25589 U. S. N. M.

The color antigeny is unusual and this coupled with the great difference in the emergence period casts some doubt as to the correctness of the association of sexes. In all structural characters the two sexes agree so well and inasmuch as they were secured from the same collection of larvae it seems best to consider the association correct.

Under the same Bureau number is recorded a single female which was collected on larch May 16, 1922. This specimen is larger than the other females and also differs in a few minor characters so it is not included in the type series.

Platycampus (Anoplonyx) laricivorus, new species.

Allied perhaps more closely to *A. canadensis* Harrington than is the new species described above but differs from Harrington's description in the pale tegulae and the ferruginous lateral spot on the ninth tergite. May be distinguished from *laricis* by the large median fovea and the black pronotum in the female and ferruginous hypopygidium of the male.

Female.—Length 5 mm. Anterior margin of the clypeus broadly, shallowly, arcuately emarginate, the lobes low and rounded; supraclypeal foveae deep,

confluent with antennal foveae; supraclypeal area convex; median fovea large, deep, trapezoidal in outline; ocellar basin obsolete; a distinct furrow from anterior ocellus to postocellar furrow; postocellar furrow well defined, straight; postocellar area convex; vertical furrows present anteriorly; postocellar line distinctly longer than ocellocular line; stigma slightly broader at base, rounded on posterior margin; sheath broad, clothed with long hair, rounded apically. Black; tegulae and legs except the infuscate apices of posterior tibiae testaceous; sides of ninth tergite fulvous; wings hyaline; venation dark brown, stigma pale brown.

Male.—Length 4.75 mm. Agrees well with description of female except anterior femora are dusky at base beneath, the hind tarsi are infuscated. Recurrentella antefurcal; hypopygidium narrowly rounded, it and two preceding sternites ferruginous; genitalia ferruginous.

Type-locality.—Coeur d'Alene, Idaho.

Described from one female (type) and three males (one allotype) recorded under Bureau of Entomology number Hopk. U. S. 16379[b]. The type and allotype reared from larvae feeding on *Larix occidentalis*, emerging in the laboratory May 15, 1922. The other two males were collected flying May 15, 1922. Material collected and reared by H. J. Rust.

Type.—Cat. No. 25590 U. S. N. M.

The type female lacks antennae, tarsi, left hind leg and the wings are crumpled apically.

Platycampus (Anoplonyx) itascus, new species.

This species like the preceding is more like *P.* (*A.*) *canadensis* Harrington than the first species but like *P.* (*A.*) *laricivorus* it possesses pale tegulae. It may be distinguished from the both preceding species by a distinct paling of the antennae from the third joint through the ninth which are distinctly black and concolorus with the basal two joints in both *P.* (*A.*) *laricus* and *P.* (*A.*) *laricivorus*.

Male.—Length 4.5 mm. Labrum polished; anterior margin of clypeus shallowly emarginate; supraclypeal foveae deep and confluent with antennal foveae; supraclypeal area convex and shining without punctures; median fovea faintly represented by a V-shaped line; ocellar basin wanting; a distinct furrow present from the median ocellus to the postocellar furrow; postocellar furrow distinct and slightly curved; postocellar area slightly convex, poorly defined laterally and undivided; postocellar line but slightly longer than the ocellocular line; head shining and practically impunctate; apical joint of antenna somewhat flattened; thorax shining and practically impunctate; posttergite long, more pointed than the scutellum posteriorly and less shining; intercubitella and recurrentella interstitial; hypopygidium rather narrowly rounded. Black; labrum brown; antennal joints 3–9 brownish, tegulae yellowish, venation yellowish, legs except the coxae yellowish; hypopygidium yellowish brown.

Type-locality.—Itasca Park, Minnesota.

Described from three males (1 type and 2 paratypes) collected

June 3, 1929, by S. A. Graham and received through the U. S. Bureau of Entomology.

Type.—Cat. No. 44064 U. S. N. M.

Hemichroa (Hemichroa) washingtonia, new species.

Like all Nearctic species, the female of this new form is closely allied to the European species *crocea* (Fourcroy). In the European form, however, the apex of the sheath is rounded and other differences are found in the head. Of the Nearctic species the female agrees in the position of the nervulus with the broken type of *H. pallida* (Ashm.). It differs in the much longer third cubital cell and in the dark posterior femora. In this it is like *H. americana* (Prov.) and *H. dyari* Roh. Ignoring the position of the nervulus, the female is more like *H. dyari* Roh.

Female.—Length 7 mm.; length of antenna 5 mm. Clypeus deeply subangulately emarginate, lobes rounded apically; middle fovea not sharply defined, elongate oval; frontal foveae deep, elongate; ocellar basin poorly defined below; antennal furrows interrupted above the frontal fovea; postocellar area gently convex, obscurely demarked, especially anteriorly, about one and one-fourth times as wide as long; third and fourth joints of the antenna subequal; stigma angulate basally, sharply tapering to a narrow apex; second recurrent very close to second intercubitus (there is some variation in this character, in some wings the two veins are interstitial); nervulus approximately in the middle of the first discoidal cell; sheath straight above, narrowly truncate apically, tapering to a broad base. Rufo-ferruginous; antennae, labrum, proepisternum, mesosternum and lower part of mesepisternum, mesepimeron, metapleurae and sheath black or dark brownish; legs black or dark brown, apices of anterior femora, their tibiae and tarsi and the base of the four posterior tibiae, pale brown; wings subhyaline with a brownish cast, darker basally, venation pale brown, stronger veins somewhat darker.

In some of the specimens the intercubiti are obsolete, particularly the second and third.

The male is more closely allied to *H. dyari* Roh. but the median fovea is more sharply defined and the supraclypeal area is less strongly convex.

Male.—Length 5.25 mm.; length of antenna 3.5 mm. Supraclypeal area gently convex; median fovea with a rather indistinct elongate pit at the bottom of a shallower depression; ocellar basin with lateral walls well defined; postocellar area sharply defined laterally, the anterior margin distinct; the other head characters as in the female; nervulus in the middle of the first discoidal cell; stigma rather gently tapering; second recurrent distinctly antifurcal; hypopygidium broadly rounded. Black; legs beyond the coxae except the apices of hind tibiae and the hind tarsi ferruginous; an indistinct ferruginous spot on the sides of the hind coxae; wings brownish, more distinctly so basally, venation pale brown.

Type-locality.—Seattle, Washington. Described from 57 females (one type) and 5 males (one allotype) collected August 25, 1923, by C. V. Piper. All of these specimens were found

dead on the leaves of beans and it is thought that they were found after the application of some insecticide.

In addition to the above series there are ten poorly preserved specimens which are undoubtedly this species from Seattle, Washington, collected July 22, 1927, by M. J. Forsell, feeding on alder and assigned Seattle #1033.[1]

Type, *Allotype* and *Paratypes*.—Cat. No. 44087 U. S. N. M.

TWO NEW TERMITES FROM COSTA RICA.

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Recently Mr. F. Nevermann of San Jose, Costa Rica, sent me a collection of termites from Costa Rica containing two new species and one species (*Mirotermes* (*M*). *panamaensis* Snyder) hitherto not recorded from Costa Rica; indeed one termite—a new species of *Neocapritermes*—is the first recorded from Middle America. Descriptions of the new species follow herewith.

Kalotermes (Neotermes) brevinotus, n. sp.

Dealated adult.—Head light castaneous brown, slightly longer than broad, with numerous long hairs. Eyes black, large, projecting, separated from lower margin of head by a distance approximately one-half the diameter of the eye; ocelli projecting, large, not round, hyaline, very close to eyes. Antennae broken, 12 segments, segments bead-like, not much difference in size. Pronotum of same color as head, slightly broader than head, concave anteriorly and slightly emarginate posteriorly, with long hairs. Wing scale slightly longer than pronotum. Abdominal tergites with long hairs at base. Apical tarsal claws with pulvillus.

Measurements.—Length of entire dealated adult: 10.0 mm.; length of head, 2.1 mm.; length of pronotum, 1.2 mm; length of anterior wing scale, 1.45 mm.; length of hind tibia, 1.6 mm. Diameter of eye (long diam.), 0.6 mm. Width of head (at eyes), 1.9 mm; width of pronotum, 2.1 mm.

Soldier.—Head light yellow brown, with darker reddish tinge anteriorly, arched, with oblique slope at front, epicranial suture slightly indicated, with fairly numerous, long hairs. Eye spot small, not distinct, hyaline. Antennae with 12 segments; third segment subclavate but not greatly modified, slightly longer than second or fourth; segments with long hairs. Mandibles piceous, reddish at base, inset from sides of head, elongate, slender, pointed and incurved

[1]Since describing this species we have examined 3 females from British Columbia, one from White Rock collected by G. Beall, one from Rosedale collected by R. Glendenning and one from Langley collected by Graham; and one male from Milner, collected by K. Graham. These four specimens were forwarded by H. H. Ross. These specimens all have the second recurrent distinctly antefurcal.